

# EXHIBIT 1

**REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL  
(Submitted Only via EFS-Web)**

Application Number	13631169	Filing Date	2012-09-28	Docket Number (if applicable)	811155-US-NP	Art Unit	2477
First Named Inventor	Stephen G. Valentine			Examiner Name	Yong Zhou		

**This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.**  
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

**SUBMISSION REQUIRED UNDER 37 CFR 1.114**

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on \_\_\_\_\_

☐ Other \_\_\_\_\_

☒ Enclosed

☒ Amendment/Reply

☐ Information Disclosure Statement (IDS)

☐ Affidavit(s)/ Declaration(s)

☐ Other \_\_\_\_\_

**MISCELLANEOUS**

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months \_\_\_\_\_  
(Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other \_\_\_\_\_

**FEES**

**The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.**

☒ The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to  
Deposit Account No 062143

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED**

☒ Patent Practitioner Signature

☐ Applicant Signature

Signature of Registered U.S. Patent Practitioner			
Signature	/Richard A. Cheng/	Date (YYYY-MM-DD)	2014-11-18
Name	Richard A. Cheng	Registration Number	65477

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

## Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Appl. No. 13/631,169

**IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE**

Application No. : 13/631,169 Confirmation No. 9603  
Filed : September 28, 2012  
Inventor(s): : Stephen G. Valentine  
Group Art Unit : 2477  
Examiner : Yong Zhou  
Docket No. : 811155-US-NP (14219.0322)  
:  
Title : METHOD AND APPARATUS FOR COMMUNICATION  
PATH SELECTION

Commissioner for Patents  
PO Box 1450  
Alexandria, Virginia 22313-1450.

**AMENDMENT**

Sir:

In response to the final Office Action of August 27, 2014, please amend the above-identified application as follows.

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### **Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### **Listing of Claims:**

1. (Currently Amended) A method of selecting, for a group of communication traffic, ~~group~~ a communication path from a source node to a destination node through a network comprising a plurality of contiguous communication paths, the method comprising:

determining  $V \bmod N$ ,

comparing a result of the determining to indices on a path selection table that associates a unique index with each of the plurality of communication paths, and

selecting a path associated with an index equal to the result, wherein N is a number of paths in the plurality of communication paths and V is a group identifier corresponding to the group of communication traffic.

2. (Currently Amended) The method of claim 1, wherein the group of communication traffic ~~group~~ is a VLAN.

3. (Original) The method of claim 2, further comprising assigning the identifier to the VLAN.

4. (Currently Amended) The method of claim 1, wherein the group of communication traffic ~~group~~ comprises a plurality of VLANs.

5. (Original) The method of claim 1, wherein the method is performed by a processor of the source node and the table is stored on a memory device assessable by the processor.

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6. (Original) The method of claim 1, further comprising ordering the paths by bridge identifier prior to associating the paths with indices in the path selection table.

7. (Original) The method of claim 1, further comprising determining how many paths  $N$  exist between the source node and the destination node.

8. (Original) The method of claim 1, further comprising storing the selected path in the path selection table.

9. (Currently Amended) The method of claim 1, wherein the plurality of contiguous communication paths are EHEC paths.

10. (Original) The method of claim 1, further comprising forwarding data traffic received at the source node toward the destination node along the selected path.

11. (Currently Amended) A network node, comprising a processor and a non-signal memory device, the memory device comprising program instructions that when executed enable:

determining  $V \bmod N$ ,

comparing a result of the determining to indices on a path selection table that associates a unique index with each of ~~the~~ a plurality of communication paths, and

selecting a path associated with an index equal to the result, wherein  $N$  is a number of paths in the plurality of communication paths and  $V$  is a group identifier corresponding to a group of communication traffic.

12. (Previously Presented) The network node of claim 11, further comprising a plurality of ports for network communication.

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13. (Previously Presented) The network node of claim 11, further comprising a VLAN table for storing an identifier associated with one or more VLANs.

14. (New) A computer readable medium storing computer program instructions, which, when executed on a processor, cause the processor to perform operations comprising:

determining  $V \bmod N$ ,

comparing a result of the determining to indices on a path selection table that associates a unique index with each of a plurality of communication paths, and

selecting a path associated with an index equal to the result, wherein  $N$  is a number of paths in the plurality of communication paths and  $V$  is a group identifier corresponding to a group of communication traffic.



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## **Remarks**

### **I. Introduction**

This is in response to the final Office Action dated August 27, 2014. In response to the finality of the Office Action, a Request for Continued Examination under 37 C.F.R. § 1.114 is submitted herewith.

Claims 1-7 and 9-12 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Application No. 2011/0063979 to Matthews et al. (hereinafter "Matthews").

Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Matthews in view of U.S. Patent No. 6,400,681 to Bertin et al. (hereinafter "Bertin").

Claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Matthews in view of U.S. Patent Application No. 2009/0304007 to Tanaka et al. (hereinafter "Tanaka").

Claims 1-2, 4, 9, and 11 have been amended. Independent claim 14 is newly added. No new matter has been added. Claims 1-14 remain for consideration. Claims 1, 11, and 14 are independent.

### **II. Rejection of Claims under 35 U.S.C. § 102(b) and 103(a)**

The Office Action rejected independent claims 1 and 11 under 35 U.S.C. § 102(b) as being unpatentable over Matthews.

In order for a claim to be anticipated under 35 U.S.C. §102, ***each and every limitation*** of the claim must be found either expressly or inherently in a single prior art reference. PIN/NIP, Inc. v. Platte Chem. Co., 304 F.3d 1235, 1243 (Fed. Cir. 2002). In the present case, Matthews does not show each and every element of independent claims 1 and 11. Therefore, Applicants request the withdrawal of the rejections under 35 U.S.C. §102(b).

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Amended claim 1 recites, *inter alia*, “selecting a path associated with an index equal to the result, wherein N is a number of paths in the plurality of communication paths and V is a group identifier corresponding to a group of communication traffic.” It is respectfully asserted that the cited references fails to teach or suggest at least these elements of claim 1.

The Office Action cites Matthews in the present rejection. Matthews relates to “network traffic management.” (Matthews; title). Specifically, the Office Action cites paragraphs [0118], [0025], [0031], [0032], and [0037] of Matthews. However, the cited portions of Matthews do not teach or suggest at least, “selecting a path associated with an index equal to the result, wherein N is a number of paths in the plurality of communication paths and V is a group identifier corresponding to a group of communication traffic,” as in claim 1.

In stark contrast, the cited portions of Matthews merely perform a modulo operation based on a hash value. Paragraph [0032] of Matthews explains this as follows: “the station 102 may perform a modulo operation on the hash value to obtain the path ID.” However, the hash value in Matthews does not “correspond to a group of communication traffic.” Instead, the hash value in Matthews corresponds to a source address or a destination address. For example, paragraph [0032] of Matthews further explains: “The path ID may have been determined, for example, by the station 102 performing a hashing function on fields in the packet 200, such as the source address field 202 and the destination address field 204.” However, a source address or destination address fails to even remotely suggest “traffic,” let alone “a group of communication traffic.” That is, the source address and destination address in Matthews merely indicates an address of a device on a network (see paragraphs [0027] and [0028] of Matthews) and does not teach or suggest the “communication traffic” travelling between the source and destination device.

Therefore, for at least the reasons discussed above, claim 1 is allowable over Matthews. Independent claims 11 and 14 have been amended to include similar elements and, thus, are also allowable over the cited art for at least the same reasons. All independent claims are allowable over the cited art.

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Allowance of all independent claims is requested. All remaining dependent claims are dependent upon an allowable independent claim and are therefore also allowable. Reconsideration and withdrawal of the rejections of claims under 35 U.S.C. § 102(b) and 103(a) is respectfully requested.

### III. No New Matter has Been Added

Support for amended claims 1 and 11 and newly added claim 14 can be found throughout the Specification and at least at page 11 and page 13, lines 20-25 of the Specification as filed. Support for newly added claim 14 can be found at least at page 16 of the Specification as filed. No new matter has been added.

### IV. Conclusion

For the reasons discussed above, all pending claims are allowable over the cited art. Reconsideration and allowance of all claims is respectfully requested.

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If this communication is filed after the shortened statutory time period has elapsed and no separate Petition is enclosed (or the enclosed Petition is insufficient), the Commissioner of Patents and Trademarks is petitioned, under 37 C.F.R. § 1.136(a), to extend the time for filing a response to the outstanding Office Action by the number of months which will avoid abandonment under 37 C.F.R. § 1.135. The fee under 37 C.F.R. § 1.17 should be charged to our Deposit Account No. 06-2143.

Respectfully submitted,

/Richard A. Cheng/  
Richard A. Cheng  
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Date: November 18, 2014

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	13631169			
<b>Filing Date:</b>	28-Sep-2012			
<b>Title of Invention:</b>	Method And Apparatus For Communication Path Selection			
<b>First Named Inventor/Applicant Name:</b>	Stephen G. Valentine			
<b>Filer:</b>	Richard A. Cheng/Susan M. Steiner			
<b>Attorney Docket Number:</b>	811155			
Filed as Large Entity				
<b>Utility under 35 USC 111(a) Filing Fees</b>				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				
<b>Extension-of-Time:</b>				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Miscellaneous:</b>				
Request for Continued Examination	1801	1	1200	1200
<b>Total in USD (\$)</b>				<b>1200</b>

**Electronic Acknowledgement Receipt**

<b>EFS ID:</b>	20731497
<b>Application Number:</b>	13631169
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	9603
<b>Title of Invention:</b>	Method And Apparatus For Communication Path Selection
<b>First Named Inventor/Applicant Name:</b>	Stephen G. Valentine
<b>Customer Number:</b>	59978
<b>Filer:</b>	Richard A. Cheng/Susan M. Steiner
<b>Filer Authorized By:</b>	Richard A. Cheng
<b>Attorney Docket Number:</b>	811155
<b>Receipt Date:</b>	18-NOV-2014
<b>Filing Date:</b>	28-SEP-2012
<b>Time Stamp:</b>	17:12:10
<b>Application Type:</b>	Utility under 35 USC 111(a)

**Payment information:**

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$ 1200
RAM confirmation Number	3826
Deposit Account	062143
Authorized User	DEMORAES, STEPHANIE

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

**File Listing:**

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Request for Continued Examination (RCE)	811155-US-NP_RCE.pdf	697601 383a6c8702a9aea3ae0262297421e55a6a0588ee	no	3

**Warnings:****Information:**

2		811155-US-NP_Response_to_OA_of_8-27-14.pdf	38963 b6725e179be7b99c334b758ce1e887530ed4adb	yes	8
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**Multipart Description/PDF files in .zip description**

	Document Description	Start	End
	Amendment Submitted/Entered with Filing of CPA/RCE	1	1
	Claims	2	4
	Applicant Arguments/Remarks Made in an Amendment	5	8

**Warnings:****Information:**

3	Fee Worksheet (SB06)	fee-info.pdf	29934 353c08ea6cc34792f72e05e27c66724a1e7a2e20	no	2
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**Warnings:****Information:**

<b>Total Files Size (in bytes):</b>			766498
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This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875					Application or Docket Number <b>13/631,169</b>		Filing Date <b>09/28/2012</b>		<input type="checkbox"/> To be Mailed			
ENTITY: <input checked="" type="checkbox"/> LARGE <input type="checkbox"/> SMALL <input type="checkbox"/> MICRO												
<b>APPLICATION AS FILED – PART I</b>												
(Column 1)			(Column 2)									
FOR		NUMBER FILED		NUMBER EXTRA		RATE (\$)		FEE (\$)				
<input type="checkbox"/> BASIC FEE (37 CFR 1.16(a), (b), or (c))		N/A		N/A		N/A						
<input type="checkbox"/> SEARCH FEE (37 CFR 1.16(k), (i), or (m))		N/A		N/A		N/A						
<input type="checkbox"/> EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))		N/A		N/A		N/A						
TOTAL CLAIMS (37 CFR 1.16(i))		minus 20 =		*		X \$ =						
INDEPENDENT CLAIMS (37 CFR 1.16(h))		minus 3 =		*		X \$ =						
<input type="checkbox"/> APPLICATION SIZE FEE (37 CFR 1.16(s))		If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).										
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))												
* If the difference in column 1 is less than zero, enter "0" in column 2.						TOTAL						
<b>APPLICATION AS AMENDED – PART II</b>												
(Column 1)			(Column 2)			(Column 3)						
<b>AMENDMENT</b>	<b>11/18/2014</b>		CLAIMS REMAINING AFTER AMENDMENT			HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE (\$)		ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(i))		* 14		Minus	** 20	= 0		X \$80 =		0	
	Independent (37 CFR 1.16(h))		* 3		Minus	*** 3	= 0		X \$420 =		0	
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))											
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))											
									TOTAL ADD'L FEE		<b>0</b>	
(Column 1)			(Column 2)			(Column 3)						
<b>AMENDMENT</b>			CLAIMS REMAINING AFTER AMENDMENT			HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE (\$)		ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(i))		*		Minus	**	=		X \$ =			
	Independent (37 CFR 1.16(h))		*		Minus	***	=		X \$ =			
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))											
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))											
									TOTAL ADD'L FEE			
<p>* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.</p> <p>** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".</p> <p>*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".</p> <p>The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.</p>											LIE /EVELYN NIMMONS/	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.